

ABSTRACT OF THE DISCLOSURE

Systems and methods for transcoding a transport stream or a video stream. A video stream includes a quantization matrix and a quantization scale that define how DCT frequency coefficients are quantized. A transport stream is transcoded by updating the quantization matrix and/or the quantization scale such that a new set of DCT frequency coefficients may be generated. Typically the quantization scale and/or the quantization matrix are updated such that the DCT frequency coefficients are more coarsely quantized such that their encoding consumes fewer bits. The quantization matrix can be updated such that select frequency coefficients are affected. Transcoding can operate at any level of the video stream, such as the frame level, the slice level, or the macroblock level. The bit rate of the video stream can therefore be adjusted or altered according to a current quantization level and a current bit rate.

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